IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-63 (canceled)

64. (currently amended) A device for adhering a biomolecule in a predetermined position comprising:

a substrate comprising a polymeric surface and having thereon a plurality of cytophilic regions that can adhere a biomolecule and cytophobic regions to which the biomolecules do not adhere wherein cytophobic regions are contiguous with the cytophilic regions,

wherein the cytophobic regions are formed of one or more surfactant compounds adsorbed directly on the polymeric surface; and

microfluidic channels on the polymeric surface.

65. (previously presented) The device of claim 64 wherein the surfactant compound is not covalently linked to the substrate.

66. (previously presented) The device of claim 64 wherein the surfactant compound comprises one or more hydrophobic regions and one or more hydrophilic regions.

67. (previously presented) The device of claim 64, wherein the surfactant compound comprises one or more heteroatoms.

68. (previously presented) The device of claim 64, wherein the surfactant compound comprises one or more alkoxy groups.

69. (cancelled)

70. (previously presented) The device of claim 64, wherein the surfactant comprises polyethylene oxide.

71. (previously presented) The device of claim 64, wherein the surfactant comprises polyC_{3-20}alkyl oxide.

72. (previously presented) The device of claim 64, wherein the surfactant comprises thiol groups.

73. (previously presented) The device of claim 64, wherein the cytophilic regions comprise biomolecules adhered thereto.

74. (previously presented) The device of claim 64, wherein the cytophilic regions comprise cells adhered thereto.

75. (previously presented) The device of claim 74, wherein cytophilic regions comprise two or more different cell types.

76. (previously presented) The device of claim 74, wherein the cells are of the same cell type.

77. (previously presented) The device of claim 64, wherein the cytophilic regions comprise binding agents for binding the biomolecule.

78. (previously presented) The device of claim 64, wherein the device is in the form of a block.

79. (previously presented) The device of claim 64, wherein the device comprises a plurality of raised features.

80. (previously presented) The device of claim 79, wherein the surface of the device is corrugated.

81-82. (cancelled)

83. (previously presented) The device of claim 64, wherein the device is substantially planar.

84. (previously presented) The device of claim 64, wherein the cytophilic regions are for adhering cells and the distance between regions permits intercellular contact.

85. (previously presented) The device of claim 64, wherein the cytophilic regions are for adhering cells and are interconnected so as to form a network of contacting cells when cells are adhered thereto.

86. (previously presented) The device of claim 64, wherein the regions are aligned to form parallel patterns of alternating cytophilic and cytophobic regions.

87. (previously presented) The device of claim 73, wherein the biomolecules comprise nucleic acids.

88. (previously presented) The device of claim 73, wherein the biomolecules comprise polypeptides.

89. (previously presented) The device of claim 64, wherein the substrate comprises polydimethylsiloxane.

90. (previously presented) The device of claim 64, wherein the device is in the form of a slide, chamber, particles, wire, container, capillary, stamp, tubing, sphere, microtiter plate, nanotube, assay plate, microchip, or implantable device and the substrate comprises a surface of the device.

91. (previously presented) The device of claim 64, wherein the substrate is polymeric.

92. (previously presented) The device of claim 64, wherien the substrate is hydrophobic.

93. (canceled)

94. (previously presented) The device of claim 64, wherein the microfluidic channels cross the cytophobic and cytophilic regions

95. (currently amended) A device for adhering a biomolecule in a predetermined position comprising:

a substrate comprising a polymeric surface and having thereon a plurality of cytophilic regions that can adhere a biomolecule and cytophobic regions to which the biomolecules do not adhere wherein cytophobic regions are contiguous with the cytophilic regions, wherein the cytophobic regions are formed of one or more surfactant compounds adsorbed directly on the polymeric surface, wherein the surfactant compound is not covalently linked to the substrate.